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ABSTRACT

Designed as a reference of staff-tested activities for use in teaching basic skills in occupational programs, this manual presents materials and activities for introducing important math, writing, and career survival skills. Part I describes a New York statewide professional development program designed to help two-year college occupational faculty facilitate students' basic skills acquisition. Background on the program's writing, math, and career survival workshops is provided, with information on the purposes and format of the resulting resource manual. Part II identifies personnel and participants involved in the professional development program. Parts III, IV, and V present the instructional and staff development materials. Math topics covered in part III include developing a perspective; common error and reasoning patterns, and difficulty areas; problem solving and word problems; understanding math anxieties; determining math needs in technical programs; and inservice activities. Part IV addresses writing concerns, including using needs assessments, improving writing assignments, competency criteria for writing, and program evaluation. Materials dealing with career survival focus on workshops, helping relationship programs, integrating career survival skills, writing resumes, after-college strategies, and company expectations. (HB)

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basic skills in postsecondary occupational education

FACULTY DEVELOPMENT RESOURCE MANUAL

JC 850031

September 1984
Two-Year College Development Center
State University of New York at Albany

Basic Skills in Postsecondary Occupational Education

FACULTY DEVELOPMENT RESOURCE MANUAL

Materials Developed and Used by New York State Two-Year College Staff in the Role of Faculty Trainers

Basics of Career Program Achievement:
Emphasis on Writing, Math/Computational Skills and Career Survival Skills
VEA 53-84-2107

TWO-YEAR COLLEGE DEVELOPMENT CENTER
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SEPTEMBER 1984

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Part I

INTRODUCTION AND PURPOSE

Part I

INTRODUCTION AND PURPOSE

Overview

Student deficiencies in basic academic skills at the postsecondary level are a continuing concern to educators. A statewide professional development program was designed to provide two-year college occupational staff members with awareness, skills and knowledges necessary to use selected intervention strategies to reinforce and facilitate acquisition of basic skills by students in occupational and technical courses. Project activities were developed with the rationale that two-year college faculty members when organized as a team are able, in an intensive training session, to acquire a minimum set of knowledges, understandings and strategies necessary for improving student basic skills within their own classrooms, as well as acquire motivations needed to function in the role of a team of peer trainers at their local campuses.

During the 1984 phase of this statewide inservice project, supported by a contract from the Bureau of Grants Administration, New York State Education Department (VEA 53-84-2107), an opportunity was afforded colleges to participate in programs focusing on writing, math/computational skills or career survival skills.

For each strand, the major purpose was to enhance student success in postsecondary occupational programs by increasing instructor awareness, skills and knowledges about skill-related techniques appropriate for reinforcement and application within the occupational curriculum. Specific objectives included:

- to increase the understanding of postsecondary occupational educators to the importance of selected basic skills in understanding and manipulating career content
- to assist faculty participants in adapting and testing targeted skill-related techniques for use in local career courses and programs
- to develop the capability of participants to transmit their skills and understandings to peers and colleagues at local campuses

Project activities developed around a team concept. Participating college staff functioned as teams representing their respective institutions. Team make-up consisted of technical faculty members, a skill specialist to serve as a resource person and an administrator to function in an ad hoc role to provide guidance and support, and coordination of inservice activities at the local college.

Each team participated in an intensive training session led by a consultant(s) with expertise in the targeted skill area. The intensive two-day training sessions were designed to provide team members with the skills and knowledges that would encourage application of selected strategies

to ongoing instructional processes. In the workshop settings, participants experienced a range of activities and techniques adaptable to their own content areas. Subsequent to the training session each team had the opportunity to request a minimal one-time grant as support to their local efforts.

The career survival skills program was a first-time offering with teams from 9 colleges participating. The writing program had 14 teams and math 7 resulting in a total of 30 participating colleges during this cycle.

The Writing Program

The underlying theme of the two-day writing training session was the concept that writing is a learning tool, and as such, is appropriate for teaching-learning activities in any career area. Toward developing this theme, the session included small and large group activities designed to develop the perspective that using writing can help students learn content. Specific topics included making writing assignments, assessing the demands of assignments, relating assignments to course objectives, helping students with the composing process, and evaluating/responding to student writing.

The workshop also helped teams establish goals and assumptions about the role of writing in their respective curricula which could be shared at their local colleges, and to make specific plans for the implementation of these goals and assumptions. Because these writing teams had the advantage of previous resource manuals for programming and materials, they were able to apply previously peer-proven materials with slight modifications to fit local needs.

The primary consultant for the writing program was Dr. Lee Odell, Rensselaer Polytechnic Institute. He urged the use of writing to help students relate the process of writing to the process of learning subject matter. Writing is viewed as a learning tool, an approach that recognizes that students have something to say and the process of writing provides a way for them to discover and communicate it. Further, this perspective pointed to the responsibility that all rightfully share in creating situations to stimulate student learning.

The Math/Computation Program

The math/computational skills two-day training session emphasized a positive approach to math, patterns of common math errors, source of math anxieties and strategies to facilitate student understandings of basic mathematical and algebraic functions. Training activities included small and large group sessions designed to develop perspective and to attend to specific error and problem areas.

The consultant for the math program was Professor Dolores Granito, SUNY-Binghamton. It was emphasized that understanding the reasons for student errors, the source of anxieties and an appreciation of the multiple concepts involved in what appear to be simple processes become the basis for facilitating student success with math/computational skills in content areas.

The Career Survival Skills Program

The career survival skills program was a first time offering. This program was based on the belief that awareness and competence in career survival skills are critical for application of the academic program to career success. The underlying rationale was that career program faculty will be more effective if they possess greater understanding of how these skills can be addressed as part of ongoing instruction, and, to simultaneously capitalize on the support available from career counseling specialists.

The training session activities were primary experiential in small and larger groups. Strategies, tools and techniques of career survival were seen as being more readily understood if participants actually experience and participate in many of the procedures that they subsequently will use within their technical classrooms.

The two-day session focused on helping students acquire greater self-awareness or self-knowledge, methods of researching careers/employers, marketing strategies and surviving the job. Strategies for facilitating faculty-counselor articulation were also addressed as part of the session.

A team of counselors, Dr. Anthony Papalia, Dr. Vincent Fadale, Mr. Richard Peagler and Ms. Sheila Dai from State University of New York College at Cortland, served as consultants.

Purpose of the Resource Manual

This resource manual is based on the processes and the materials developed by local teams in transmitting expertise gained from the training sessions to local faculty and staff. In some instances, the materials were drawn from those shared as part of a follow-up to teams of previous cycles. The manual has been compiled as a reference of staff-tested activities that can be used by other two-year college faculty, staff or administrators. Development of materials continues at several colleges, although not available in time for this publication. The quantity of materials is extensive, making cost of total reproduction prohibitive, thus, representative materials were selected for inclusion. Parts III and IV are supplements to previous publications in this format.*

The comprehensive materials developed specifically for the training workshop by project consultants have been excluded from this manual of team-developed resources. In many cases materials developed by teams closely reflect those prepared by the consultants, but were adapted to better address local needs, preferences and career areas.

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*Two-Year College Development Center, State University of New York at Albany

Basic Skills in Postsecondary Occupational Education: FACULTY DEVELOPMENT RESOURCE MANUAL, September 1983 (VEA 53-83-0173)

Writing in Postsecondary Occupational Education: FACULTY DEVELOPMENT RESOURCE MANUAL, September 1982 (VEA 53-82-9002)

This publication is not intended to be a comprehensive manual on basic skills, but rather a compilation of samples of materials that have been used in local professional development programs. Further, these materials are not necessarily in a form that any instructor can pick up, find a detailed set of directions, and use. They require certain attitudes, awareness, and background information to be applied. The authors of the materials obtained their background in the project inservice sessions and subsequently provided it to faculty on their campuses. All techniques and concepts will not be seen as appropriate for every course, but some techniques can and are being used in a wide range of courses with positive results.

In addition to serving as a source to facilitate sharing among the teams and colleges who have participated to date, and as a resource to other two-year college staff who may be addressing application of skill related instructional strategies to occupational content, this manual is designed to recognize those two-year college professionals who have worked throughout the year and have given time and effort beyond project expectations. They are experienced in transmitting skill related knowledges and skills through professional development programs to colleagues. They know what works, what does not work; and they recognize the advantages as well as the pitfalls of assuming two roles--that of classroom instructor and faculty trainer. They are eager and willing to share their thoughts and ideas with you.

We and the team members invite you to contact the team leader or individual participants, if as you go through this manual, you find this kind of interaction useful to your needs. All are willing to talk with you, share experiences and whatever additional or specific materials may be available. The project staff at the Two-Year College Development Center also welcomes your inquiries.

Format of Resource Manual

In addition to this first introductory section, the Resource Manual consists of four parts outlined as follows:

- Part II identifies teams and colleges, individual team members, team leaders and ad hoc administrators for the three programs. The first listing is of math teams; the second of writing teams and the third of teams that participated in career survival skills.

- Part III consists of selected team developed materials that have been used in classrooms and as part of local inservice sessions subsequent to the math training session. Each material sample identifies the participant/team preparing the material and the respective college.

- Part IV consists of selected materials which have been developed or adapted by writing teams. Again, the adapters/developers are identified by team and college.

- Part V consists of materials used by teams that participated in the career survival skills program. These materials are related to instruction in the technical classroom as well as efforts to integrate the work of counselors and faculty.

Program outcomes represented in part by the content of this publication are testimony to the interest, concern and ability of two-year college faculty and staff to recognize the importance of these basic skills to learning and subsequently to job competence.

Part II

TEAM AND PROGRAM IDENTIFICATION

Part II

TEAM AND PROGRAM IDENTIFICATION

Introduction

Team members, team leaders and administrators who served in the specialized supportive role, are identified in this section for each college which participated in the math program, the writing program or the career survival skills program. The first list (A) identifies math teams; the second list (B) writing teams; and the third list (C) career survival skills teams.

This section concludes with a summary of process options utilized most frequently by various teams in their local efforts.

List A: Identification of Team Members Participating in Math/Computational Skills in Postsecondary Occupational Program

Alfred Agricultural and Technical College
Alfred, New York 14802
(607) 256-3201

Midge Sanders, Team Leader
Grace Barton, Team Member
Joan Daniels, Team Member
John Joyce, Team Member
Jim Wenslow, Team Member
Robert Granger, Ad Hoc Administrator

Capital District Educational Opportunity Center
Washington and Front Streets
Troy, New York 12180
(518) 273-1900

William Chalmers, Team Leader and Ad Hoc Administrator
Pauline Bowden, Team Member
Genevieve Tucker, Team Member
Thomas Yager, Team Member

Cazenovia College
Cazenovia, New York 13035
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Doris Holdorf, Team Leader
Joseph Adamo, Team Member
Maggie Argentine, Team Member
Tim Hartman, Team Member
Margery Pinet, Ad Hoc Administrator

Community College of the Finger Lakes
Lincoln Hill
Canandaigua, New York 14424
(716) 394-3500

Gretchen Starks, Team Leader
Kathy DelCour, Team Member
Rochelle Downing, Team Member
Howard Green, Team Member
Sherman Hunt, Team Member
John Cable, Ad Hoc Administrator

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4140 Southwestern Boulevard
Orchard Park, New York 14127
(716) 648-5400

Barbara Donsky, Team Leader
Richard DelPrincipe, Team Member
Frank Mustillo, Team Member
Edward Serwon, Team Member
Lawrence Seyfried, Ad Hoc Administrator

New York City Technical College
300 Jay Street
Brooklyn, New York 10036
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Harvey Braverman, Team Member
Peter Deraney, Team Member
Joel Greenstein, Team Member
Lorraine Beitler, Ad Hoc Administrator

Niagara County Community College
3111 Saunders Settlement Road
Sanborn, New York 14132
(716) 731-4101

Kay Collard, Team Leader
Carolyn Goldberg, Team Leader
Irene Costanzo, Team Member
Carl Heintz, Team Member
Marvin Maziarz, Team Member
Teresa McGlennon, Ad Hoc Administrator

List B: Identification of Team Members Participating in Writing in Postsecondary Occupational Education Program

Borough of Manhattan Community College
199 Chambers Street
New York, New York 10007
(212) 262-5460

Leonore Hoffmann, Team Leader and Ad Hoc Administrator
Susan Amerling, Team Member
Elva Christy, Team Member
Basil Cleare, Team Member
Linda Markstein, Team Member

Brooklyn Educational Opportunity Center
470 Vanderbilt Avenue
Brooklyn, New York 11238
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Martha Hennington, Team Leader and Ad Hoc Administrator
Joan Grant-Boyd, Team Member
Clifton Murdock, Team Member
Nettie Paisley, Team Member
Joseph Rivellese, Team Member

Cayuga County Community College
Franklin Street
Auburn, New York 13021
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David Martin, Team Leader
Scott Barnes, Team Member
Mary Dickson, Team Member
Karen Kopec, Team Member
Margaret B. Savage, Ad Hoc Administrator
Thomas Steenburgh, Ad Hoc Administrator

Cazenovia College
Cazenovia, New York 13035
(315) 655-3466

Joyce Ross, Team Leader
Carol Long, Team Member
Lilliam Ottaviano, Team Member
Emilie Schwartz, Team Member
Margery Pinet, Ad Hoc Administrator

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Bronx, New York 10451
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Linda Hirsch, Team Leader
Frances Gaskin, Team Member
Rita Loomis, Team Member
Salvatore Martino, Team Member
Cyril H. Price, Team Member
Angel Capelian, Ad Hoc Administrator

Hudson Valley Community College
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Troy, New York 12180
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Carol Kelly, Team Leader
James Early, Team Member
Charles Herubin, Team Member
William Julien, Team Member
John Nickles, Team Member
Adrian C. Gonyea, Ad Hoc Administrator

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Brooklyn, New York 11235
(212) 626-2700

Morton Fuhr, Team Leader
Dorothy Schweitzer, Team Member
Elizabeth Miller, Ad Hoc Administrator

North Country Community College
20 Winona Avenue
Saranac Lake, New York 12983
(518) 891-2915

Beverly Dupree, Team Leader
Edward Baker, Team Member
Andrew Hasland, Team Member
Ann Kraus, Team Member
Howard Maat, Ad Hoc Administrator

Queensborough Community College
222-05 56th Avenue
Bayside, New York 11364
(212) 631-6262

Lila Friedman, Team Leader
Stanley Garfunkel, Team Member
Roberta Rosenbaum, Team Member
David Shimkin, Team Member
Michael C. T. Brookes, Ad Hoc Administrator

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Riverhead, New York 11901
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Keith Henn, Team Member
Maria Museler, Team Member
Grace Dolan, Ad Hoc Administrator

Sullivan County Community College
Loch Sheldrake, New York 12759
(914) 434-5750

Kathleen Schatzberg, Team Leader
Mike Fisher, Team Member
Barbara Grace, Team Member
Charles Moss, Team Member
Doris Ruben, Team Member
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Ulster County Community College
Stone Ridge, New York 12484
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Lawrence Borzumato, Team Leader and Ad Hoc Administrator
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Joan Gilbert, Team Member
Richard Glazer, Team Member
Joe Keefe, Team Member
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(716) 896-0700

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Mary Beard, Team Member
Marguerite McGowan, Team Member
Anthony Tullio, Team Member
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Westchester Community College
75 Grasslands Road
Valhalla, New York 10595
(914) 347-6800

Gwendolyn Griswold, Team Leader
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Peter Doukas, Team Member
Hugh McCabe, Team Member
Linda Sledge, Team Member
Ray Wall, Team Member
Marilyn Menack, Ad Hoc Administrator

List C: Identification of Team Members Participating in Career Survival Skills in Postsecondary Occupational Education Program

Adirondack Community College
Bay Road
Glens Falls, New York 12801
(518) 793-4491

Timothy Lahey, Team Leader
Rodney Bucklin, Team Member
Mrs. Elizabeth Cassidy, Team Member
Marie Huba, Team Member
Mrs. Ann Attanasio, Ad Hoc Administrator

Dutchess Community College
Pendell Road
Poughkeepsie, New York 12601
(914) 471-4500

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Joan Artz, Team Member
Clare Graham, Team Member
Elizabeth Szanto, Team Member
Anthony A. Adamo, Ad Hoc Administrator

Hostos Community College
475 Grand Concourse
Bronx, New York 10451
(212) 960-1200

Peter Martin, Team Leader and Ad Hoc Administrator
Eugene Berrios, Team Member
Bette Kerr, Team Member
John Montanez, Team Member
Melba Olmeda, Team Member
Jean Pettaway, Team Member
Angel Cabellan, Ad Hoc Administrator

Mater Dei College
Riverside Drive
Ogdensburg, New York 13669
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Jane Klosner, Team Leader
Sister Anne Hogan, Team Member
Robert Ichihana, Team Member
Sister M. Ruth LaPlatney, Team Member
Sister Mary Hortense Cavanaugh, Ad Hoc Administrator

Onondaga Community College
Syracuse, New York 13215
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Mary McMann, Team Leader
Shirley Myrus, Team Member
Sylvia Sumter, Team Member
Barbara Davis, Ad Hoc Administrator

Paul Smith's College
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George J. Piskoz, Team Member
Barbara Sartorius, Team Member
James F. Canniff, Ad Hoc Administrator

General Process Options Used in Inservice Programs

The topics addressed in local programs generally reflected the content or emphases presented in the workshop training sessions. In each case topics were modified to fit the time and audience at the individual campus. Math teams generally looked at reasons for the more common math errors and determined strategies to help students better understand and cope with concepts involved. Writing teams looked to increased use of writing as a learning tool through speculative writing and through carefully designed assignments necessitating writing activities. The career survival skills teams examined the skills needed by students in preparing, acquiring and successfully holding a job.

The process options employed by all teams in math, writing and career survival skills followed a similar pattern. The most frequent formats and options used are summarized as follows:

I. Goals/Outcomes

A. Awareness of problems/issues/techniques associated with skill area

B. Acquisition of skills/knowledges/attitudes appropriate to targeted skill area

C. Production of materials for own use

D. Implementation of techniques in classrooms of team members and local participants

E. Assessment of effectiveness of techniques employed in the classroom and in the inservice program

F. Production of materials/services for others

G. Determination of local assessment of needs in targeted skill area

H. Increased articulation among faculty, specialists and administrators

II. Participants

A. Volunteers from general faculty and staff

B. Volunteers from selected departments

C. Invitation to selected staff title/position

D. Combinations of the above

III. Presenters

A. Team members

B. Selected team members

C. Selected college staff

D. External consultants

E. Combinations of above

IV. Instructional Mode

A. Large group presentations/demonstrations
B. Small group workshops
C. One-on-one
D. Combinations of above in prescribed sequence

V. Participant Motivation

A. Professional responsibility
B. Interest
C. Administrative recognition
D. Departmental representation
E. Others, and in combination

VI. Program Continuance

A. College-wide program alliance
B. Departmental/divisional level program alliance
C. Original team continues as training resource for total college staff development program
D. Team plus participants as training resource for total college staff development program
E. Informal ad hoc basis
F. Other

VII. Grant Money Expenditures

A. Consultant services
B. Local secretarial/clerical services
C. Varied workshop expenditures
D. Instructional materials, supplies and duplication

Part III

SELECTED TOPICS AND MATERIAL RESOURCES FOR MATH IN POSTSECONDARY OCCUPATIONAL EDUCATION

Part III

SELECTED TOPICS AND MATERIAL RESOURCES FOR MATH IN POSTSECONDARY OCCUPATIONAL EDUCATION

The training session for teams participating in math/computational skills in postsecondary occupational education focused on five general problem areas: developing a positive approach, common error patterns, diagnostic strategies associated with these errors, instructional strategies to help overcome these patterns, and anxieties associated with computational skills. In presenting local staff development programs, the teams selected topics reflecting these emphases. Materials and activities were developed or adapted to help address the topics within respective local inservice programs. Areas selected most frequently included math anxieties, determining actual mathematical requirements for courses and jobs, preparation of student materials to help infuse mathematical and computational skills into career content, and assessment of program effectiveness.

The materials selected for inclusion are viewed as supplemental to 1983 resources. The materials in this section are grouped by the following topics:

Developing A Perspective

Summary of Common Error Patterns, Reasoning Patterns and Difficulty Areas

Problem Solving and Word Problems

Understanding Math Anxieties

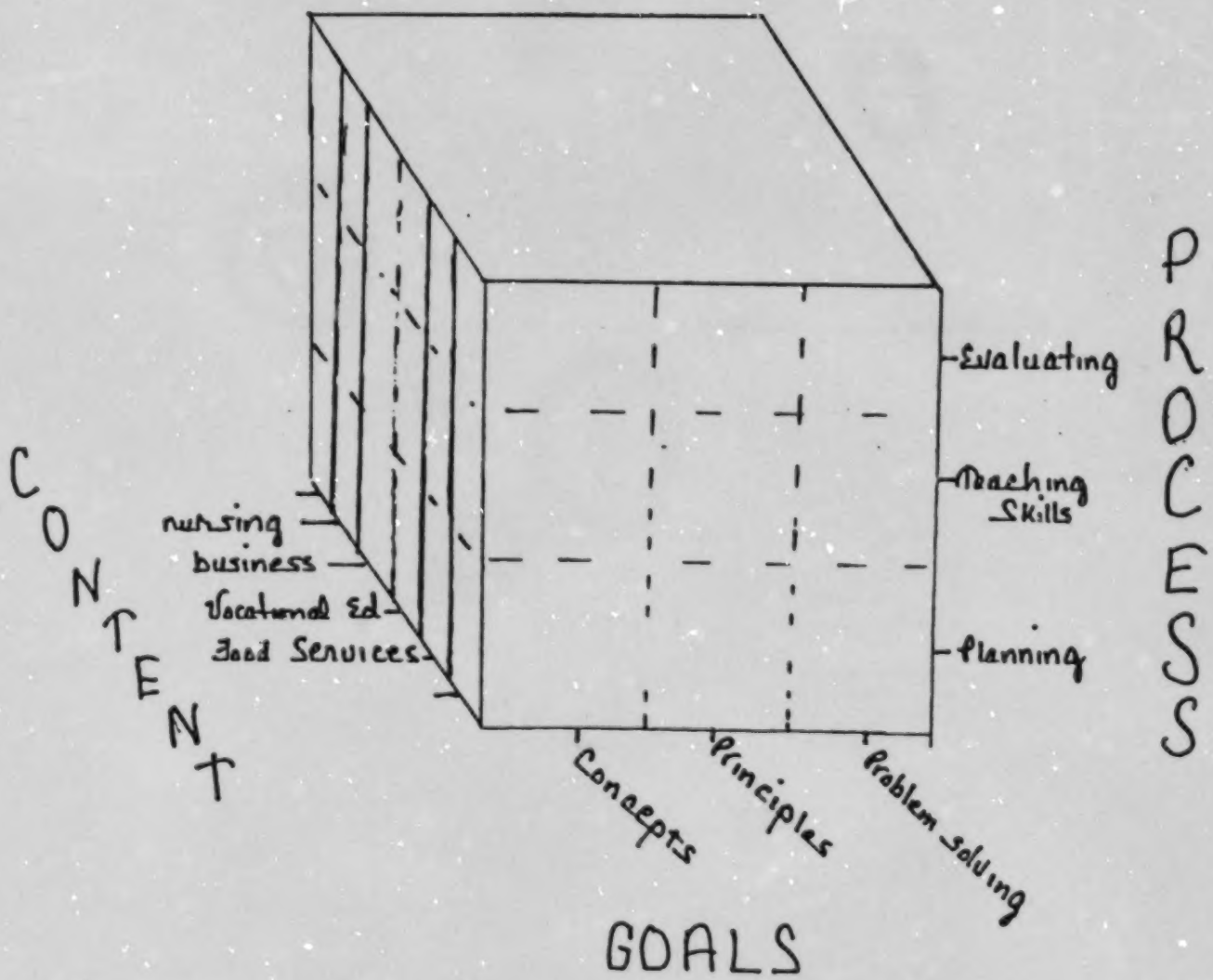
Determining Math Needs in Technical Programs

Sample Workshop Format

Evaluation Instruments Developed to Determine Effectiveness of Inservice Activities

Developing A Perspective

Competence in basic skills is essential for effective learning. Basic skills are techniques for acquiring knowledge. These skills include a wide array of procedures and methods necessary for good academic performance including mathematical skills with respective vocabulary, notations, and processes. The perspective promoted by this program is the integration of these skills to content and application to the broader goals of education. Professor Granito, consultant, offered the following model:



The model provides a framework which illustrates the link of math skills needed to function effectively in content areas with general goals of the field of math, and correlated with instructional processes. Given this model, an instructor in a career field may determine the skills and level of math skills specific to a particular course or program. Once these are defined a specialist may work with instructors to isolate student needs and facilitate the teaching process.

Prior to the centralized training session, career content faculty responded to a request to identify common math needs exhibited by students in their career programs. The results of this needs assessment are summarized by frequency:

1. The following operations cause difficulty:

   addition - 7
   subtraction - 7
   multiplication - 15
   division - 16
   multiplication and division with zeroes - 11

   In the following areas:

   integers - 8
   decimals - 20
   fractions - 6
   percents - 2
   rounding, square roots, and signed numbers - 1 each

2. Which operations cause difficulty with fractions:

   multiplication and division - 17
   addition and subtraction - 11

3. Do students have trouble with ...

   changing fractions to decimals - 20
   changing decimals to fractions - 16
   changing percents to decimals - 13
   changing decimals to percents - 12

4. Problem areas?

   adding and subtracting decimals - 6
   multiplication of decimals - 12
   division by decimals - 21

5. Problems in other areas:

   measurement and metrics - 12
   area and volume - 7
   ratio and proportion - 12
   geometry - 4

continued . . . . .

6. Problems with word problems in the area of ...

   discounts on selling price - 10
   discount on cost - 10
   simple interest - 6
   commission - 6
   sales tax - 5

7. Math anxiety, etc.?

   yes - 19
   no - 0
   sometimes - 6

8. Do you take credit off for simple math errors?

   yes - 10
   no - 1
   usually not - 2

9. Do students have difficulty reading and analyzing a word problem?

   yes - 17
   no - 1
   sometimes - 6

10. How important is math competency in jobs or careers which your students will be entering?

    very important - 13
    somewhat important - 10
    somewhere between very and somewhat important - 1

11. Are you aware of how much math your students have generally had?

    yes - 20

N = 25

This same survey requested specific examples from technical faculty to demonstrate the type of mathematics used in the various career areas. The examples generally fell into the three areas of percentages, metrics, and solving for the unknown. Selected examples follow:

PERCENTS

1. A florist uses a 40% cost of goods sold in his design process. What is the cost value involved in a $25 arrangement?

2. a) Find the retail markup percentage if the cost is $8.50 and the retail price is $13.00.

   b) Find the retail price if the cost is $4.20 and the markup represents 40%.

continued . . . . .

3. A. J. Mills has 40% of his investments in common stock, 20% in savings and loan, 15% in bonds and the balance in real estate. The real estate amounts to $16,000. What is the cash value of the total investments?

4. The average salary is $243.56 per week. Workers just received an 8% increase. What is the new average salary?

5. What is the exact interest on a $20,000 Treasury Bill that yields 14.5% interest if time of the instrument is 26 weeks?

6. A manufacturer pays his salesmen 10% commission on all sales up to $5,000 per month and an additional commission of 6% on all sales in excess of that amount. Bill, a salesman, sold $6,495 worth of merchandize during June. What did he earn in commissions during the month?

7. Mr. A has an opportunity to purchase a refrigerator for $2,000, less 15% from Company X. Company Z offers the similar equipment for $1,880 less 10% and will charge $20 for installation. How much will be saved by accepting the lower offer?

8. In a 16 quart cooling system, what quantity of coolant is required for a 60% antifreeze solution?

9. Find the selling price if the cost is $20 and the markup is 10% of the cost. $S = (1 + R_c)\ C$

10. What is the tax rate in West, N.D. if a tax of $6.25 is charged on a purchase of $250?

METRIC

1. Using the Label Factor Method, the medication Kardex states: Streptomycin 0.5 gm p.o. The label reads: Streptymycin 250 mg/tab. How many tablets should you administer?

2. Conversion from metric to apothecary and vice versa.

3. Changing from Fahrenheit to Celsius and vice versa.

4. A late model engine has a displacement of 3.7 liters. What would the displacement be in cubic inches?

SOLVING FOR THE UNKNOWN

1. Assets = Liabilities + Owners Equity

   100 = 50 + ?

   Solve for ?

continued . . . . .

2. Checking in equations: $3x - 5 = x - 4$ Check for $x = \frac{1}{2}$

$$3(\tfrac{1}{2}) - 5 = \tfrac{1}{2} - 4$$

$$3\tfrac{1}{2} - 5 = \tfrac{1}{2} - 4$$

3. Given

$$\frac{1}{1 - MPC} = \frac{1}{MPS}$$

$MPC = .8$

4. Ohms Law: $V = I \cdot R$

Based on the results of the input provided by the faculty, the training session focused on the frequently identified need areas.

In general, when undertaking a process of instruction or of developing a concept relative to math/computational skills, technical faculty should consider any or all of the following:

1. Convince the learner (s)he can perform the task.

2. Motivate the need for learning.

3. Review the prerequisites.

4. Give an example of the task.

5. Structure learning activities.

6. Provide multisensory aids for initial learning.

7. Provide a wide range of applications.

8. Provide practice work.

9. Correct student errors.

10. Structure conditions to assess the effects of instruction.

11. Summarize what has been learned and permit students to see the whole picture.

ERROR PATTERNS, REASONING PATTERNS, AND DIFFICULTY AREAS IN LEARNING MATHEMATICS

According to Cooney, Davis, and Henderson[1] students have difficulty in learning mathematics in two areas: CONCEPTS and PRINCIPLES.

CONCEPTS

1. Inability to remember technical names
2. Inability to state meaning of terms designating a particular concept
3. Inability to remember one or more conditions necessary for an object to be denoted by the designating terms
4. Inability to remember a condition sufficient for an object to be denoted by the term designating the concept
5. Inability to give or recognize an example
6. Misclassifying
   a. either a non-example as an example
   b. or an example as a non-example
7. Inability to deduce useful information from a concept

PRINCIPLES

1. Lack of basic concepts
2. Inability of students to decide what factors are relevant and consequent inability to abstract a pattern
3. Students will memorize a principle
4. Students have difficulty applying principle

---

[1] Dynamics of Teaching Mathematics, Houghton Mifflin

Problem-Solving and Word Problems

This section consists of strategies for use in attending to problem solving, and the identification of criteria to use in development of word problems when applying problem-solving techniques. The third resource outlines an approach of methodology to be used in problem-solving. Sample word problems complete this section.

PROBLEM SOLVING STRATEGIES

1. Look for a pattern
2. Construct a table
3. Account for all possibilities
4. Act it out
5. Make a model
6. Guess and check
7. Work backwards
8. Make a drawing, diagram, or graph
9. Select appropriate notation
10. Restate the problem
11. Identify "given," "wanted," and "needed" information
12. Write an open sentence
13. Identify a subgoal
14. Solve a similar problem
15. Change your point of view
16. Check for hidden assumptions

Handed out by Ben Lindeman at the November 1983 meeting of the Association of Mathematics Teachers of New York State.

APPLICATION AND WORD PROBLEMS CRITERIA FOR GOOD EXAMPLES*

1. Data should be realistic, both in the kind of information assumed known and the actual values used. A problem that says find the length of a room given its perimeter and area, is artificial.

2. Data that are real (specific prices, times, laws, etc.) are to be preferred. Where feasible, and instructive, student gathered data should be used.

3. The "unknown" in the problem should be reasonably expected to be unknown in reality. It is artificial to ask Mary's age, given various information about John's age and their relative ages three years ago.

4. It should be made plausible, if not clear, that someone might have a reason to seek the answer to the problem. "Find three consecutive integers whose sum is 54" does not meet this test.

5. The solution should not be "intuitively" obvious to the typical student; the mathematical approach should be in some way necessary.

6. Computations needed for numerical results should be feasible with (at most) a modest hand calculator.

7. The temptation to base problems on formulas (mathematical or empirical) pulled out of the air should be resisted.

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*As suggested by The Committee on Undergraduate Programs in Mathematics of the Mathematical Association of America.

METHODS FOR PROBLEM SOLVING
(BASIC ANALYTIC STEPS USED IN PROBLEM SOLVING)

Classification

Structure Analysis

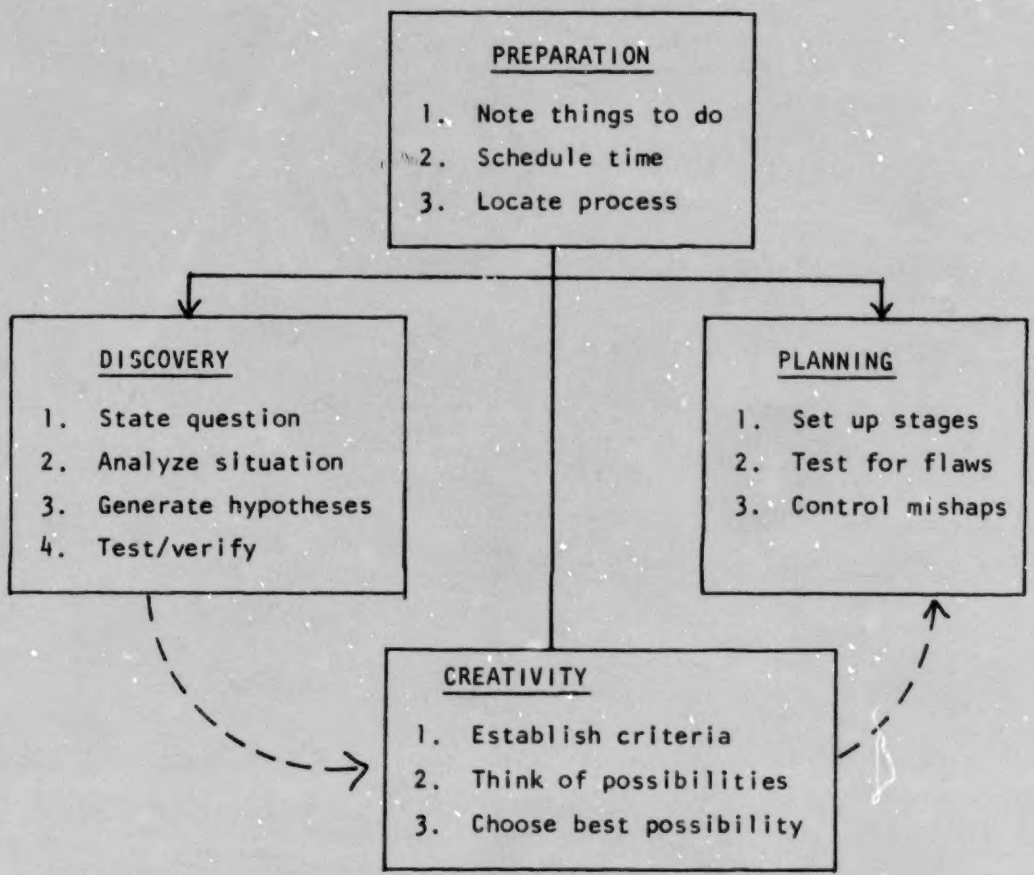
Operation Analysis

Qualification

Analogy

Definition

These approaches help you perform the larger processes in problem solving (e.g., preparation, discovery, creativity, planning).



Prepared by Community College of the Finger Lakes Math Team

SAMPLE WORD PROBLEMS

Jim rows 9 miles downstream in the same time it takes to row 3 miles upstream. The current flows at 6 miles per hour. How fast does Jim row in still water?

Find the selling price if the cost is $20 and the markup is 10% of the cost. Use formula: $S = (1 + R_c)C$

Mr. Rossi made $113, he invested a sum at 16% and another sum $500 more than the first at 5%. Find the two sums.

Your company divides its profits among five shareholders. Your share is 48 1/3%, your brother's share is 1/12 of the profits, your wife's share is 16 2/3% of the profits, and the remaining amount goes to your two children equally in trust for their college education. What percent of the profits does each child receive?

As chief accountant, you supervise 26 account personnel and expect the work load to double in the next three months. The data processing equipment currently in use can be expected to absorb 48% of the load. What recommendations about increased personnel needs would you make?

How many problems did Jane have right if she received a grade of 85% in a math test of 20 problems?

Mr. Wright brought a washing machine for $216. He paid 25% in cash and the balance is to be paid in 12 equal monthly installments. How much must he pay each month?

Mrs. Ritter stored her fur coat for the winter and was charged 2% of its value. If the cost is valued at $750, how much did she pay?

Last month your department produced 26,000 units of Item B-17. Production costs totaled $13,000. What did it cost last month to produce one unit of Item B-17?

A tax of $11.55 is paid on each lamp bought by a store. During one month, the store paid $138.60 in taxes. Each lamp was sold for $95.60. Find the total income that the store received from the sale of the lamps?

A baseball player hit safely 46 times in 165 times at bat during a season. What was his batting average?

Prepared by Capital District Educational Opportunity Center Math Team

Understanding Math Anxieties

The math teams, when presenting local programs and applying mathematical strategies in their own classroom, recognized the demands of what were seemingly simple operations. Often the demands of using math skills require a depth of skill competency which may actually be more advanced than the course level. Although fear of mathematics may be something of a cliche, it can develop as an excuse for failure or for avoiding computation all together. "Hating math" is a feeling rooted from a lack of skill to perform basic functions. Anxieties about math also tend to manifest themselves as a result of societal mores which then result in differential behavior by the sexes in dealing with math. The question of what psychological problems are encountered by students in learning math, coupled with the recognition of cognitive demands in learning, have come together in these local programs by serious consideration of the practical steps an instructor is able to take to help students learn the mathematics demanded by career content courses. With this perspective participants sought to identify skills integral to learning content areas that can be related to reducing or overcoming negative feelings about math and concurrently increase skill performance of mathematical functions.

GOALS TO CONSIDER IN OVERCOMING MATH ANXIETY

PSYCHOLOGICAL:

1. Understanding of problem
2. Awareness of feelings and behavior
3. Decrease anxiety
4. Modify behavior

MATHEMATICAL:

1. Relational understanding
2. Problem solving skills
   a. Heuristics use
   b. Estimation
   c. Evaluation
3. Calculator use

REFERENCES AND BIBLIOGRAPHY: ANXIETY AND SEX DIFFERENCES

MEDIA:

"Math Anxiety: We Beat It. So Can You!" available both in 16mm or 3/4" video tapes from EDC Distribution Center. Suite 402, 55 Chapel Street. Newton. MA 02160

"Multiplying Options and Subtracting Bias" available in four 30-minute videotapes from National Council of Teachers of Mathematics. 1906 Association Drive, Reston VA 22091

"Women in Science" videotape series available from The University of Michigan. 3066 School of Dentistry, Ann Arbor, MI 48109

Texts and Other Publications:

Women and the Mathematical Mystique, edited by Lynn Fox, Linda Brody and Dianne Tobin, John Hopkins University Press, Baltimore c. 1980

A National Assessment of Performance and Participation of Women in Mathematics, Dr. Jane Armstrong, Director, National Assessment of Educational Progress, 1860 Lincoln Street, Suite 700, Denver, Colorado 80295, c. 1978

Women and Mathematics: Research Perspectives for Change, Lynn Fox, Elizabeth Fennema, and Julia Sherman, National Institute of Education, Washington, D.C. 20238, c. 1977

Perspectives on Women and Mathematics, edited by Judith Jacobs, ERIC Clearinghouse for Science, Mathematics and Environmental Education, College of Education, The Ohio State University, 1200 Chambers Road, Columbus, Ohio 43212, c. 1978

Programs in Science, Mathematics and Engineering for Women in the United States: 1966-1978, compiled by Michele Aldrich and Paula Hall, American Association for the Advancement of Science, 1776 Massachusetts Avenue, N.W., Washington, D.C., c. 1980

Achievement and Participation of Women in Mathematics: An Overview, Jane Armstrong, Education Commission of the States, 1860 Lincoln Street, Suite 700, Denver, CO 80295, c. 1980

VARIABLES WHEN LOOKING AT SEX DIFFERENCES

A. Math Factors (Spatial Visualization)

B. Math and Oneself (Attitude)

C. Attention

D. Attribution Factor

E. Reasons for Choosing Math

F. Social and Parental Influences

G. Career Plans

H. Usefulness of Math

I. Influence of Significant Others

J. Academic Plans

K. School Experience

MATH GAMES OTHERS PLAY ON US

There is a great deal of outside reinforcement for the math games you play on yourself. Others play math games on you, both intentionally and unintentionally. It is as important to recognize these games as it is to recognize the games you play on yourself. When you do this, you will find they lose their discouraging affect on you.

OTHERS ARE PLAYING MATH GAMES ON YOU WHEN THEY SAY:

- "You did it the wrong way."
- "You should know that."
- "You will never be able to do math."
- "It's obvious."
- "That's an easy problem."
- "All you have to do to learn math is to work hard."

Prepared by Community College of the Finger Lakes Math Team

MATH QUIZ

Directions: Mark the following either True or False.

_____1. Men are better in math than women.
_____2. Math requires logic, not intuition.
_____3. You must always know how you got the answer.
_____4. Math is not creative.
_____5. There is a best way to do a math problem.
_____6. It's always important to get the answer exactly right.
_____7. It's bad to count on your fingers.
_____8. Mathematicians do problems quickly in their heads.
_____9. Math requires a good memory.
____10. Math is done by working intensely until the problem is solved.
____11. Some people have a "math mind" and some don't.
____12. There is a magic key to doing math.

* * * * * *

Benson's Relaxation Response

1. Sit comfortable in a place where no one is likely to disturb you.

2. Insulate yourself from external distractions. Close your eyes.

3. Relax your muscles in your body by starting with your toes and working slowly upwards. Toes-feet-ankles-knees-thighs-etc. up to your head.

4. Breathe through the nose. When breathing becomes regular, say "one" on each exhalation. Maintain this for 10-20 minutes.

5. Let thoughts drift through the mind. Don't hang on to them and don't try to push them away. Just pretend that the thoughts are clouds which drift in and out of the environment.

Prepared by Cazenovia College Math Team

Determining Math Needs in Technical Programs

This section contains initial materials developed by math teams toward determining the prerequisite skills needed by technical programs. In each case, the materials are the initial draft and serve as the beginning of a diagnostic process to be put in place at the respective college. The process should help the content instructor identify those skills needed while, at the same time, supporting the work of the specialist in addressing needed skill areas through student-oriented activities as well as faculty development strategies.

The first resource is a diagnostic tool which is a sample of an instrument being developed for engineering technologies. The second resource is looking at the prerequisite skills demanded in nursing. In both instances a sample of the diagnostic test items are provided. The second also includes the format used to help content instructors identify those skills.

SAMPLE DIAGNOSTIC TOOL FOR ENGINEERING TECHNOLOGIES

1. Ninety-three million, four thousand seven is written:

   (a) 93,000,004,007 (b) 93,004,07
   (c) 93,004,007 (d) 93,004,700
   (e) 930,004,007

2. 8073 ÷ 39 =

   (a) 2007 (b) 217
   (c) 27 (d) 207
   (e) 270

3. The average of 8, 9, 7, and 0 is

   (a) 24 (b) 4
   (c) 3 (d) 8
   (e) 6

4. One movie is 3 hours, 10 minutes long. Another is 1 hour, 55 minutes long. How much shorter is the second movie?

   (a) 1 hour, 15 minutes (b) 2 hours, 45 minutes
   (c) 1 hour, 45 minutes (d) 2 hours, 15 minutes
   (e) 5 hours, 5 minutes

5. $\frac{2}{5} + \frac{1}{2} =$

   (a) $\frac{3}{7}$ (b) $\frac{9}{10}$
   (c) $\frac{3}{10}$ (d) $\frac{2}{7}$
   (e) $\frac{1}{5}$

continued . . . . .

Student Name	Errors Made	Skill Needs
Al	Questions correct 1 2 3 4 5 You got 5 questions correct out of 5. This is equal to 100%.	Topics you had trouble with - None
John	Questions correct 2 3 4 5 0 You got 4 questions correct out of 5. This is equal to 80%.	Topics you had trouble with - Text to Number
Sue	Questions correct 3 4 5 0 0 You got 3 questions correct out of 5. This is equal to 60%.	Topics you had trouble with - Text to Number Division
Jane	Questions correct 0 0 0 0 0 You got 0 questions correct out of 5. This is equal to 0%.	Topics you had trouble with - Text to Number Division Averages Time Problems Addition of Fractions

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Prepared by Alfred Agricultural and Technical College Math Team

SAMPLE DIAGNOSTIC MATH SKILLS TEST: NURSING

Do the following problems on scrap paper and place your answer on the answer sheet. Please do not write on the test. Do not guess.

1. Add 14, 17, and 9.

   (1) 34
   (2) 49
   (3) 39
   (4) 40
   (5) None of these

2. Add 241, 572, and 154.

   (1) 967
   (2) 957
   (3) 977
   (4) 867
   (5) None of these

3. Add 8723, 4056, and 59.

   (1) 12838
   (2) 18688
   (3) 9238
   (4) 87234115
   (5) None of these

4. Subtract 17 from 49.

   (1) -32
   (2) 66
   (3) -66
   (4) 32
   (5) None of these

5. Subtract 234 - 177.

   (1) 67
   (2) -57
   (3) 57
   (4) 411
   (5) None of these

6. Find the difference 5478 - 492.

   (1) 2695176
   (2) 5970
   (3) 4986
   (4) -4986
   (5) None of these

7. Multiply 35 times 14.

   (1) 175
   (2) 3640
   (3) 385
   (4) 490
   (5) None of these

8. Multiply 150 by 25.

   (1) 37.5
   (2) 600
   (3) 3750
   (4) 375
   (5) None of these

continued . . . . .

9. Multiply 354 by 586.

(1) 207534
(2) 7032
(3) 6726
(4) 207444
(5) None of these

10. Divide 56 by 8.

(1) 6 r 8
(2) 7.1
(3) .143
(4) 7
(5) None of these

11. Divide 4326 by 42.

(1) 103
(2) 13
(3) .103
(4) 7
(5) None of these

12. Divide 322002 by 801.

(1) 42
(2) 420
(3) .002459
(4) 402
(5) None of these

13. Add 1/2 and 1/3.

(1) 2/5
(2) 2/6
(3) 6/5
(4) 5/6
(5) None of these

14. Add 2/3 and 4/7.

(1) 3/5
(2) 2/9
(3) 4/9
(4) 1 and 5/21
(5) None of these

15. Add 2/15 + 4/3 + 5/8.

(1) 11/26
(2) 11/120
(3) 2 and 11/120
(4) 1 and 131/120
(5) None of these

Prepared by Alfred Agricultural and Technical College Math Team

CONCEPTS REQUIRING MATH SKILLS: NURSING 1

Concept Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Adding whole numbers	●		●		●				●	●	●			●		●	●
Subtracting whole numbers	●													●			
Multiplying whole numbers	●			●	●				●	●	●				●		
Dividing whole numbers	●			●	●				●	●	●			●	●		
Calculating ratio and proportion				●	●				●	●	●			●	●		
Finding information on tables										●	●			●	●		
Entering information on tables (graphs, etc.)	●	●			●					●	●				●		
Identifying correct order of operations					●				●								
Converting quantities to equivalent amounts	●		●	●	●				●	●	●			●	●		
Multiplying decimals	●			●	●				●	●	●			●	●		
Dividing decimals	●			●	●				●	●	●			●	●		
Rounding off decimals	●			●	●				●	●	●			●	●		
Substituting numbers in formulas	●																
Multiplying fractions				●	●				●	●	●			●	●		
Dividing fractions				●	●				●	●	●			●	●		
Reading scales (syringes, etc.)	●	●			●	●	●	●		●	●	●	●	●	●		
Roman numerals				●	●										●		

LEGEND

Concept #	Concept
1	LEG I B (10-14) Taking TPR ($C=\frac{F-32}{1.8}$)
2	LEG II A (1,2) Taking BP
3	LEG II C (6,7) Measuring I&O
4	LEG III B (6,9) Conversion of Drug Dosages
5	LEG III B (8,9) Adm. of Oral, Vag., Rectal, Sublingual Drugs
6	LEG III C (14,15) Application of Heat and Cold
7	LEG III C (16) Assist with Sitz Bath
8	LEG III C (17) Applying Hot Wet Compress
9	LEG IV B (i) Calculating Dosages of Parenteral Meds
10	LEG IV B (5,6) Giving I.M. Injection
11	LEG IV B (7,8) Giving Subcutaneous Injection
12	LEG IV B (13,14) Giving Cleansing Enema
13	LEG IV C (6) Weighing on a Balanced Scale
14	LEG IV C (14,15) Observing and Adjusting Flow Rate of I.V. Fluids
15	LEG V B (3,4) Giving Pain Medication
16	LEG V B (13) Administration of Ear gtts.
17	LEG V C (3,6) Administration of Eye gtts.

● = prerequisite skill for concept

Prepared by Alfred Agricultural and Technical College Math Team

FACULTY WORKSHOP ASSIGNMENT

Chart three written and/or verbal problems that you give students in your program on a regular basis.

Based on the results of your charting, determine what strategies YOU can implement in your program to help those students who have difficulty with these problems.

SAMPLE MATH SKILLS PREREQUISITES	CONCEPTS REQUIRING MATH SKILLS				
CONCEPT NUMBER	1	2	3	4	5
Adding whole numbers					
Subtracting whole numbers					
Multiplying whole numbers					
Dividing whole numbers					
Calculating ratio and proportion					
Finding information on tables					
Entering information on tables					
Expressing operations in equiv. forms of notations					
Indentifying correct order of operations					
Converting quantities to equivalent amounts					
Adding proper fractions (common denominators)					
Finding least common denominators					
Adding proper fractions (unlike denominators)					
Converting improper to proper fractions					
Dividing whole numbers by fractions					
Reading decimal fractions					
Reading mixed decimals					
Adding decimals					
Subtracting decimals					
Multiplying decimals					
Dividing decimals					
Dividing whole numbers (decimal quotients)					
Dividing whole numbers (decimal remainders)					
Rounding off decimals					
Converting common fractions to decimals					
Interpolating scales with decimals					
Ordering decimals within a range					
Squaring whole numbers					
Squaring decimals					
Finding square roots of whole numbers					
Finding square roots of decimals					
Converting decimals to per cents					
Plotting coordinates on graphs					
Collecting terms to solve for the unknown					
Substituting numbers in formulas					
Substituting π - pie in formulas					

Finding powers of ten					
Multiplying powers of ten					
Dividing powers of ten					
Finding equivalent powers of ten					
Converting powers of ten to decimals					
Converting decimals to negative powers of ten					
Solving for reciprocal powers of ten					
Finding a percent of a number					
Using sine and cosine					
Using right-triangles					
Using Signed numbers					
Finding the reciprocal					
Converting per cents to decimals					
Ordering decimal fractions					

CONCEPTS

1.

2.

3.

4.

5.

Prepared by Capital District Educational Opportunity Center Math Team

Sample Workshop Format

This section includes a sample outline used by one math team toward increasing awareness of their career content faculty to selected concerns regarding math skills in the content areas. In each instance, the math team selected an approach that was most appropriate to the local institution. This sample is offered only as an example of one approach taken and utilized successfully by a math team.

LUNCH AND LEARN

MATH: How Is It Used in Your Curriculum?

FOCUS:

A closer look at the math concepts and skills needed by the students in your courses - What are they? How do we get them across?

OBJECTIVES:

- *to develop an awareness of the math concepts used in your courses and the need to reinforce and/or reteach the appropriate skills to your students*
- *to develop a common language for the concepts used in your career courses*
- *to develop an awareness of the standardized approaches to solving problems involving math which may be used in your career areas*

ACTIVITIES:

Presentation *Group Discussion*

NOTE: *Please submit sample problems from your curriculum which cause difficulty for your students. Examples may be forwarded to N426 or brought with you to the session.*

Prepared by New York City Technical College Math Team

Evaluation Instruments Developed to Determine Effectiveness of Inservice Activities

The selected instruments are representative of forms developed by math teams in seeking to determine the extent to which their emphasis was appropriate to the needs of their college, and the degree to which activities undertaken were effective in transmitting the necessary awarenesses and knowledges.

WORKSHOP EVALUATION

Circle response 1, 2, 3, or 4 for each question asked.

	No, Not At All	Probably Not	Probably Yes	Most Definitely
1. a) Did the workshop provide you with useful information concerning available math resources on campus?	1	2	3	4
b) Do you plan to recommend increased use of the Math Lab by your students?	1	2	3	4
2. Did the workshop enable you to identify math prerequisite or math course needs within your curriculum?	1	2	3	4
3. Do you plan to pursue the development of math pre-requisites within your curriculum?	1	2	3	4
4. Has the workshop made you more sensitive to math anxiety in your students?	1	2	3	4
5. Do you feel that your curriculum's math needs have been made known to the Coordinator of Developmental Math?	1	2	3	4
6. Did you find the information concerning the teaching of metric measure to career students useful?	1	2	3	4

Prepared by Niagara County Community College Math Team

EVALUATION OF MATH WORKSHOP

The Math Workshop covered the following topics:

a. assessing and identifying needs through charting
b. math anxiety and women in math
c. strategies for dealing with student math errors

1. Which of the above was most interesting to you? Why?

2. Which do you see as having the most potential for implementation in your work with students?

3. Which topic did you find least helpful? Why?

4. What area should have been covered in more depth?

5. What area should have been given less time?

6. Were there other topics you wanted to have covered that were not discussed?

Prepared by Capital District Educational Opportunity Center Math Team

Part IV

SELECTED TOPICS AND MATERIAL RESOURCES FOR WRITING IN POSTSECONDARY OCCUPATIONAL EDUCATION

Part IV

SELECTED TOPICS AND MATERIAL RESOURCES FOR WRITING IN POSTSECONDARY OCCUPATIONAL EDUCATION

The materials selected for inclusion in this section are viewed as supplemental to previous manuals.[1] The 1982 edition was devoted in its entirety to writing and a section of the 1983 manual was devoted solely to writing materials. In many cases, teams of the current cycle drew from these publications and adapted those strategies and materials to local needs. Materials selected for inclusion in this manual demonstrate a unique focus, a synthesis of content, an innovative approach, a variation in perspective or a difference in packaging which may, in turn, provide ideas for others addressing writing in postsecondary occupational education. In each case, the team or individual preparing the material is identified to facilitate potential contact by readers for further information about a particular technique. In some instances the materials were submitted by teams from a previous cycle as part of ongoing sharing. This section consists of the following topics:

Using Needs Assessments

Improving Writing Assignments

Competency Criteria for Writing

Evaluating the Effectiveness of Local Programs

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[1] Basic Skills in Postsecondary Occupational Education: FACULTY DEVELOPMENT RESOURCE MANUAL. Albany, NY: Two-Year College Development Center, State University of New York at Albany, September 1983.

Writing in Postsecondary Occupational Education: FACULTY DEVELOPMENT RESOURCE MANUAL. Albany, NY: Two-Year College Development Center, State University of New York at Albany, September 1982.

Using Needs Assessments

Teams have to address an awareness-building phase with their local faculty. Needs assessments often serve to help develop a perspective as well as determine those strategies or applications most appropriate to respective career programs. In several instances teams made the decision to use a survey since it achieves multiple purposes. Not only does it increase faculty awareness of the presence of a functioning resource, but helps identify writing priorities held by local faculty. Two instruments were selected for inclusion in this manual. Some were adapted from those presented previously and others developed specifically by a team for the respective campus.

FACULTY WRITING QUESTIONNAIRE

Please check the appropriate response and return to Truck and Diesel Department

1. Are there writing tasks you wish to improve? ____ yes ____ no

   If yes, what kinds?

   ____a. memo writing

   ____b. business letters

   ____c. reports

   ____1) summary

   ____2) curriculum development

   ____3) academic promotion and tenure

   ____4) others; please name _____

   _____

   _____

2. Would you like some kind of writing workshop designed to address these tasks? ____ yes ____ no

   If yes, what kind?

   ____a. a three-hour workshop*

   ____b. shorter sessions extending over several weeks

   ____c. a writing course for which you might receive in-service or college credit

   ____d. other; please specify _____

   _____

*If yes to a. above, would you be willing to meet for the workshop one time during the week of May 16? ____ yes ____ no

Prepared by Alfred Agricultural and Technical College Writing Team

FACULTY SURVEY FORM

1. Do you think writing should be required of all students in all subjects?

   Yes _____ No _____

   Comments:

2. How frequently do you use writing in your classes?

   Every class meeting _____
   Once a week _____
   Once a term _____
   Not at all _____
   Other _____

   Comments:

3. What types of writing assignments do you use?

   Essays _____ Lab reports _____
   Research paper _____ Short writing assignments _____
   Short answer quizzes _____ Other _____

4. If you assign the research paper, do you take your students through the research process in a disciplined, step-by-step fashion?

   Yes _____ No _____

   Comments:

5. If you give written assignments, do you correct mechanical errors as well as content errors?

   Yes _____ No _____

   Comments:

6. Do you consciously design writing assignments with course objectives in mind?

   Always _____ Sometimes _____
   Frequently _____ Occasionally _____

   Comments:

continued . . . . .

7. Are there factors that restrict use of writing by your courses?

Yes _____ No _____

If you checked yes, please comment:

8. In which one(s) of the following areas are your students deficient?

	Most	Many	Few
Paragraph development	____	____	____
Organization	____	____	____
Sentence structure	____	____	____
Grammar	____	____	____
Spelling	____	____	____
Vocabulary	____	____	____
Punctuation	____	____	____

9. Do you teach students how to read the textbooks you assign?

Yes _____ No _____

Comments:

10. Do you teach students how to study your course material?

Yes _____ No _____

Comments:

11. Which of the following areas would you like to see addressed in a writing across the curriculum workshop?

1. Making writing assignments _____
2. Evaluating writing assignments _____
3. Assessing demands of the subject _____
4. Making student writing consistent with the demands of the assignment _____
5. Other _____

Comments:

Prepared by Suffolk County Community College-Eastern Campus Writing Team

Improving Writing Assignments

The project carries the rationale that students who are better able to interact with the content of their field are more apt to experience academic and employment success. Writing is a tool toward helping students learn, understand and perceive relationships within that context.

The categories of activities addressed by teams within their local programs dealt with free, speculative and ungraded writing activities plus the formal and usually graded assignments. Speculative writing techniques ranged from periodic minimal efforts to systematic processes by which students continually interacted with individual faculty members. The formal graded writing assignments ranged from brief, specified activity to research projects involving multiple skills.

WRITING ASSIGNMENTS: CULTURAL ASSESSMENTS AND THEIR IMPLICATIONS FOR NURSING INTERVENTIONS

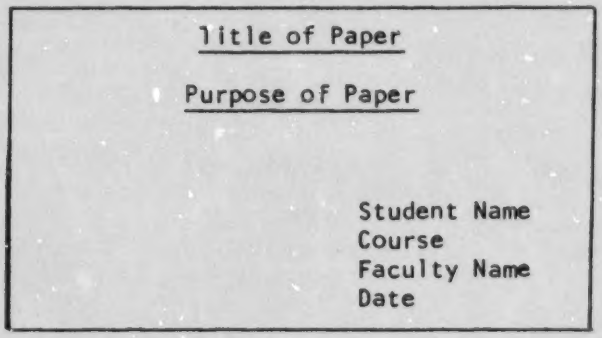
Purpose: Demonstrate knowledge of cultural practices and their import for planning and implementing nursing care.

Assignment:

1. Ask the instructor to assign a specific cultural group.
2. Describe the practices unique to that cultural group, which relate to three of the following areas:

   Traditional Values and Beliefs
   Food Habits
   Hygiene
   Communication Patterns
   Family Life
   Time Orientation
   Religious Practices

3. Discuss the implications of each for nursing care of an elderly member of the cultural group.
4. To receive a satisfactory grade on this assignment the student must submit a paper that:
   a. is handed in by the twelfth scheduled class.
   b. is in typewritten form with no more than three spelling and three grammatical or punctuation errors.
   c. has a cover sheet designed as follows:



   d. has a minimum length of five pages double-spaced.
   e. is documented in accordance with an accepted style manual.
   f. includes a bibliography prepared in accordance with an accepted style manual.
   g. is submitted in duplicate.

NOTE: This is an alternate assignment for students absent from or unsatisfactory in the group project on cultural diversity.

Prepared by Rockland Community College Writing Team

ASSIGNMENT INPUT

ASSIGNMENT TYPE	INPUT: INSTRUCTOR	INPUT: STUDENT
1. Inter-student communique	Assignment	Write; Comment
2. Inter-section communique	Assignment	Write; Comment
3. Student Questionnaire	Assignment; Read	Write
4. Exam	Assignment; Make answer key; *O.H.T.	Write; Grade
5. Quiz	Assignment check	Quiz; make-up with answer key; Grade
6. Cost estimates	Assignment; Read, Comment	Calculations; Explanation; correct
7. Formal report	Assignment; Motivation; Comment; Grade	Write; research; query; discussion; correct
8. Job application form	Assignment; (real and/or mock); mediate	Write; query; discussion; correcting
9. Resume	Assignment; read; comment	Write; correct
10. Mock interview	Assignment; mediate	Presentation; comments; judgment
11. Presentation to Advisory Commissions	Assignment; set-up	Write; oral presentation
12. Progress report (lab. sections)	Assignment; mediate	Write; communicate; present

*Overhead transparencies

Prepared by New York City Technical College Writing Team

SAMPLE ASSIGNMENT: DESIGN PROBLEM REPORT

The completed problem is to be presented in a report folder with all identifying information such as name, course, section, date, instructor, etc.

**The following are to be included in the report folder:*

1. Blank first page
2. Title page (practically the same information as on report cover)
3. Table of contents
4. Acknowledgement and/or dedication if any
5. Introduction - brief description in your own words, of the report and its purpose
6. Copy of problem with your specific problem number indicated
7. All calculations in their PROPER order with references to drawings that calculations pertain to (reference by page number and drawing number)
8. All drawings are to be on standard Giesecke layouts and folded properly down to an "A" size; the drawings, on regular standard paper are to be inserted so the report does not necessitate rotation of folder and so the drawing can be unfolded and replaced easily; proper notes and/or bills of materials are to be used where clarification requires
9. Discussion sections are to include:
    a) Material choice and reasons
    b) Costs
    c) Design problems
    d) Research problems
    e) Problems that you expect might be encountered in manufacturing and how they can be overcome
    f) Summary, include:
        1) Uses for unit
        2) Quality and reliability
        3) Approximate price of unit
10. Bibliography

*Any deviation from above requires instructor's permission.

Prepared by New York City Technical College Writing Team

OUTLINE OF COURSE NOTES: INCOME TAX SAMPLE

UNIT 1

Page 5-6 Employer, employee, independent contractor - districtions

7 Withholding
Definition of wages, wages other than money, exception when for the convenience of employer

8 Wages exempt from withholding - among others: agricultural labor, maid, service as a minister of the gospel, individuals under 18 in the delivery of newspaper

9 WITHHOLDING ALLOWANCES

Worksheet to determine W4-Face page 13, reverse page 11

Permitted allowances:

Personel allowances p 10, special withholding allowance - who can take? p 10, other allowances permitted: estimated deductions and tax credits and income

averaging - Page 11

14 Exemption from withholding

19 Wage & tax Statement - W2 illustration

22-23 Who must file Extension of time to file

25-26 Fillng status

28-30 Gross income exclusions:

31-32 Gross income inclusions

32-34 Exemptions: Personal, dependents

37-38 Form 1040EZ

Prepared by Schenectady County Community College Writing Team

COLLABORATIVE ASSIGNMENT: DEPARTMENTS OF ENGLISH AND MANAGEMENT AND MARKETING - RESEARCH PAPER OUTLINE

Students have the option of selecting one of the following two assignments:

Assignment 1.

"All paid employments absorb and degrade the mind" Aristotle.

"No person with a strongly developed esthetic sense, a love of nature, a passion for music, a desire for reflection or a strongly marked independence could possibly be happy in a factory or white collar job" Charles Reich, The Greening of America.

These quotations, the first from an ancient philosopher, the latter from a contemporary social commentator, are cited by William Safire in his article, "The Work Ethic" published in the early 1970s in The New York Times. The quotations clearly state that work is unappreciated, unsatisfying, and unfulfilling.

Do you agree or disagree? You are obliged in this paper to support your position with information, either summarized or directly quoted, from a minimum of three sources from the reference list. You may, of course utilize additional sources of information.

Assignment 2.

Past generations of Americans worked to survive and to provide a better life for themselves and their children. The work force of the '70s and '80s views work differently, however. In what ways have attitudes toward work changed? What are the causes of these changes? What are the effects? How are you influences by these changes in attitude?

Directions:

1. Read the following articles in the reference list which discuss the attitudes of Americans toward work.
   "What is the point of working?" Lance Morrow
   "Is the work ethic going out of style?" D. M. Morrison
   "The job blahs" Unsigned
2. Write a 5-6 page paper, using the style manual published by the college, to respond to the questions. Use the information in the three articles cited above to support your conclusions. You are encouraged, moreover to cite additional sources of information to support your conclusions.
3. Organize your material clearly and forcefully, choosing from your sources the most significant details and examples to explain the causes and effects of the these changes of attitude toward work. Speak directly to me and to your classmates in presenting your argument.

4. The paper you submit for evaluation must be typed. Summarized and quoted information must be footnoted. Your paper should be carefully edited. Fifty percent of your grade will be based on the substantive content of the paper--50% on the paper's organization and on the power of your argument.

Reference List

Reinecke, J. A. and Schoell, W. F., Introduction To Business: A Contemporary View, 1983, Allyn and Bacon, Inc., Boston.

Peters, T. J. and Waterman, R. H., In Search of Excellence: Lessons from America's Best-Run Companies, 1982, Harper and Row Publishers, New York.

*"Is the work ethic going out of style?" Charles Reich

*"What is the point of working?" Lance Morrow

*"The work ethic," William Safire

*"Study says work ethic is alive but neglected," William Serrin

*"The blue collar Worker's lowdown blues," Unsigned

*"The job blahs," Unsigned

---

*On file at the Reference Desk in Library.

Prepared by Westchester County Community College Writing Team

TROUBLESHOOTING PAPER: INDUSTRIAL ELECTRICITY

Before you begin, you must choose a focus and an audience.

(1) Focus of paper

(a) You may discuss troubleshooting in response to one symptom possibly exhibited by one machine. (Example: Failure of spindle to rotate on CNC)
(b) You may discuss troubleshooting in response to several symptoms possibly exhibited by one machine.
(c) You may discuss the troubleshooting process generally, not limiting your remarks to a specific symptom or a specific machine.

(2) Audience

For whom (other than instructor) are you writing your paper? Your audience will determine what you say and how you say it. Do you need to define certain terms, identify certain tools, describe certain processes?

Paragraph one Here define "troubleshooting." Explain what part it plays in the job of the electrician.

Paragraph two Here indicate the focus of your paper. If you have chosen to deal with a specific symptom, a specific machine, tell your reader that. If you have chosen to deal with troubleshooting any symptom or problem, tell your reader that.

Paragraph three Here note the materials and equipment needed in the troubleshooting process.

Paragraphs four through ? Here present the possible causes of the specific symptom(s) (or those things the electrician would usually check in troubleshooting) and discuss the investigation into each cause. Devote one paragraph to each possible cause and the investigation into that cause. Write a topic sentence for each paragraph indicating the symptom and possible cause. (Example: "The failure of the drill press bit to penetrate the metal may be a consequence of insufficient power being fed to the press.") You may use the indicative mood here: "First the electrician loosens the nut . . . ." Or you may use the imperative mood, actually issuing commands: "First, loosen the nut . . . ."

Final paragraph(s) Here discuss solutions to the problems uncovered.

Make certain that you write clearly and correctly. Write in complete sentences. (A complete sentence has a subject and a verb and expresses a complete thought.) Check capitalization, punctuation, and spelling.

Make certain that your paper is neat. Write in ink, on standard-size white paper.

Prepared by Cayuga County Community College Writing Team

IN-CLASS WRITING ACTIVITIES

I. PURPOSE:
- To stimulate and expand your thinking
- To develop skill in extracting key ideas from written and non-written materials
- To develop skill in clear, purposeful writing
- To become more aware of your attitudes, experiences, and behavior

II. STRUCTURE:

The structure of the in-class writing will be defined as follows:

(a) Teacher directed activities, such as:
- opened ended questions and predictive statements
- concept mapping
- classroom and field experiments
- film and article analysis

(b) Student directed observations and experiences, such as:
- reflective statements
- problem formulation
- synthesis of ideas

III. EVALUATION:

Each activity will be collected and evaluated, with the total worth of all activities being 10% of your final grade. All activities will be returned at the end of the term.

Prepared by Cazenovia College Writing Team

INDEX OF WRITING EXERCISE TO OVERCOME DEFICIENCIES

SKILL AREA REC#	TEXT/MEDIA PROG PAGES	LE
Adj/Adverb Confusion 5	English Fundamentals, 6th Ed- 153-158	M
Adj/Adverb Confusion 115	English Modular Mini-Course 9	M
Adj/Adverb Confusion 31	Grassroots 172-181	L
Adj/Adverb Confusion 180	Writing with A Purpose, 7th Ed. 461-462	M
Apostrophe 15	English Fundamentals, 6th Ed. 115	M
Apostrophe 38	Grassroots 182	L
Apostrophe 53	Groundwork 155-165	L
Apostrophe 96	Writing Lab. The 1	M
Brackets 125	English Modular Mini-Course 14	M
Brackets 103	Writing Lab. The 23	M
Brackets 201	Writing with A Purpose, 7th Ed. 487-488	M
Capitals 14	English Fundamentals, 6th Ed. 191-194	M
Capitals 37	Grassroots 202-204	L
Capitals 69	Least You Should Know About E 166-174	L
Capitals 95	Writing Lab. The 4	M

Prepared by Cayuga County Community College Writing Team

Criteria for Evaluation of Writing Assignments

A concern for some set of criteria or standards that could be used by content specialists as well as writing specialists grows from the concern for better developed assignments. Often the demand for acceptable performance criteria are part of a college effort. In some instances standards are considered by an individual department or division; in others it becomes an individual matter which has been shared with others and subsequently expanded.

EVALUATION LEVELS OF AN ESSAY EXAMINATION

Level I

A, A-	Outstanding in all respects. Factually correct, well-organized answers. Excellent use of details and examples to prove hypothesis. A clear grasp of the subject under discussion. Good mechanics and grammar.
B+, B, B-	Strong in most respects. Good and accurate use of details and examples to support thesis. Well organized. Clear grasp of the subject under discussion. Good grammar and mechanics.
C+, C, C-	Adequate in most respects. Most points covered correctly. May have fewer details and examples. "Listing" used rather than a thesis with organized support. Adequate mechanics and grammar.
D+, D, D-	Inadequate in a number of respects. Facts wrong or omitted. Few details or examples. Disorganized. No clear grasp of subject under discussion. Inadequate grammar and mechanics.
F	Fails to respond to questions. Significant number of omissions of important facts. Few details or examples. No organization. No grasp of subjects discussed.

A well done essay answer shows that you thought before you wrote. Your thesis or central point will be supported by correct and carefully chosen facts, details, examples. This kind of organization shows that you clearly understand what you are writing, not just listing whatever facts come to mind in whatever order they occur to you. Your grammar and mechanics must be acceptable in standard written English.

You are encouraged to jot down ideas and facts, and to organize them to support your central point before you start to write the answer. Numbering the jotted points in the order of their importance to your central point provides you with a useful informal outline.

Prepared by Cazenovia College Writing Team

CRITERIA FOR PAPER

1. Is there a clear controlling idea expressed in the first paragraph?

2. Is the introductory paragraph used to "set up" the body paragraphs of the essay?

3. Does the body of the paper flow logically from the introductory paragraph?

4. Are the supporting points logically arranged?

5. Is each supporting point sufficiently developed for the reader to understand the ideas?

6. Is the information in the paper presented smoothly or does it seem to jump from point to point?

7. If quotations are used, are they appropriate to the point being illustrated?

8. Does paraphrased material seem too close in wording to the book or article from which it was taken?

9. Is documentation correctly done?

10. Are grammar and punctuation acceptable?

Prepared by Cazenovia College Writing Team

Evaluating the Effectiveness of Local Programs

One objective of the training session is to provide teams with an outline of the kinds of evidence sought by colleges to help determine the effectiveness of the general project strategy, as well as effectiveness of local inservice programs. As a result, teams seek feedback from local faculty subsequent to their inservice programs. In instances of in-class application of strategies by faculty members, team leaders are also seeking indications of the extent to which selected strategies are useful and helpful to career students. A selection of forms used to evaluate local efforts are included as references.

WRITING ACROSS THE CURRICULUM-FOLLOW-UP QUESTIGNNAIRE

1. Did you attend Workshop #I? Yes____ No____

2. Have you read the "Learning by Writing" pamphlets? All four____ Some____ None____

3. As a result of the above resources, have you:

   a. begun to use writing in your courses? Yes____ No____ I was using writing before____

   b. increased the use of writing in your courses? Yes____ No____

   c. attempted to improve existing writing assignments? Yes____ No____

4. What new kinds of writing assignments have you tried?

   Clarifying Statements____ Reports____

   Silent Conversations____ Summaries____

   Term Papers____ Other_____

5. In what ways have you tried to improve existing writing assignments?

6. What problems have you had with new or altered writing assignments?

7. What strategies have you used to help students overcome difficulties in handling writing assignments?

   Short sequential assignments____ Peer Review____ Modeling____

   Individual conferences____ Referral to Writing Lab____

   Self-evaluation worksheets____ Other_____

8. What further services could the Cross-Disciplinary Writing Project offer to assist you and other faculty in developing and integrating effective learning-by-writing activities into the College's instructional program?

Many thanks for your cooperation.

_____

Prepared by Hudson Valley Community College Writing Team

FACULTY WORKSHOP DAY-QUESTIONNAIRE

1. How did you first hear about this seminar?
   "Currents" _____ Brochure _____ Other _____
   Poster _____ Colleague _____

2. Overall, how would you rate this workshop?
   Excellent Poor
   1 2 3 4 5 6

3. Which sessions did you find most helpful?
   (a) Address and Questions: Writing Across the Curriculum
   Very helpful Not helpful at all
   1 2 3 4 5 6

   (b) Workshop session: Responding to Student Writing
   Very helpful Not helpful at all
   1 2 3 4 5 6

   (c) Address and Questions: Science, Technology and Human Development
   Very helpful Not helpful at all
   1 2 3 4 5 6

   (d) Workshop Session: Writing Assignments and Collaborative Writing
   Very helpful Not helpful at all
   1 2 3 4 5 6

4. How would you rate the speakers?
   Knowledge of subject
   Excellent Poor
   1 2 3 4 5 6

   Presentation
   Excellent Poor
   1 2 3 4 5 6

   Knowledge of subject
   Excellent Poor
   1 2 3 4 5 6

   Presentation
   Excellent Poor
   1 2 3 4 5 6

5. The handouts were:
   Very helpful Not helpful at all
   1 2 3 4 5 6

6. What were the strengths of the seminar?

7. How could the seminar be improved?

8. Please write in any comments about the physical facilities, food, etc.

9. What action will you take as a result of attending this seminar?

10. What suggestions do you have for further professional development programs? (Please let us know if you have recommendations for presenters as well.)

11. When would you be most likely to attend a professional development program?

Morning_____ Afternoon_____ Evening during week_____ Saturday_____

12. Please indicate: Faculty _____
Academic Administrator _____
Non-academic Administrator _____
Other _____

Prepared by Hudson Valley Community College Writing Team

Part V

SELECTED TOPICS AND MATERIAL RESOURCES FOR CAREER SURVIVAL SKILLS IN POSTSECONDARY OCCUPATIONAL EDUCATION

Part V

SELECTED TOPICS AND MATERIAL RESOURCES FOR CAREER SURVIVAL SKILLS IN POSTSECONDARY OCCUPATIONAL EDUCATION

The training sessions for teams participating in the Career Survival Skills in Postsecondary Occupational Education focused on five general topical areas:

The Acquisition of Self-Knowledge and Self-Awareness

The Tools and Methods of Determining this Self-Knowledge and Self-Awareness

Methods of Researching Careers and Employers

Marketing Strategies and

Surviving the Job

Within these five broad areas, the training session activities utilized experiential strategies in both large and small groups. In addition, the consultant team provided opportunity for individuals to consult and discuss the unique dimensions of local campuses.

The materials selected for inclusion in this section reflect the major emphases of these local programs. In addition, there were notable efforts undertaken at the local colleges to increase the integration of effort by the counselors, placement officers and technical faculty. In some instances, these types of strategies did not result in tangible materials to be shared, but rather served to establish local linkages from which greater emphases will be given to career survival skills through the combined efforts of technical faculty and the career specialists. The materials in this section are grouped by the following topics:

Workshop Outlines

Helping Relationship Programs and Evaluation

Integrating Career Survival Skills

Writing Resumes

After-College Strategies

Company Expectations

Building A Perspective

In contrast to other skill areas, such as writing, math or reading, the topic of career survival skills is less defined and has less standardization from college to college. Perhaps to a greater extent than other skill areas, career survival is primarily rooted with the individual. In considering how to better attend to career survival skills the individual student becomes the starting point. It should be recognized that there are selected commonalities that each student will need to understand and function effectively. Further, career survival has only recently been considered as a pattern of skills. Historically, it has been viewed as "something that will happen" and once "they've graduated, they're on their own," or further, "it's not our responsibility but it's up to them to grow up."

With the recent economic trends and the increased competition for available jobs, the opportunities for trial-and-error basis of finding the right job by the right person is becoming increasingly difficult. In the past, graduates enjoyed the luxury of an open job market where a mistake could be rectified by simply changing jobs. Since this is no longer an alternative, it behooves each student to acquire the skills necessary to make an optimal choice the first time around. This precipitates college responsibility to provide a structure and strategies by which students may acquire needed skills.

The area of career survival skills can be generally defined by relating the type of skill to the level of need. While in college, students need to become aware of themselves and become more informed about their personal preferences, aptitudes, skills, and desires. Gaining this kind of information helps students perceive how their

current program of study is related to career goals, at least as established at the student level. Several strategies may be used in helping the student gain the self-knowledge. Standardized tests, workshops, counseling centers, counseling sessions, job fairs, opportunities for contact with employers, field trips, internships, work-study jobs are among the activities that provide an opportunity for students to explore.

The second level of need emerges when the student begins to seek a job. Once this level is reached, the methods of researching careers, strategies to learn about employers and strategies to market themselves become of primary importance. If students have had the opportunity to learn about themselves, this second level grows from a firm base. Students seeking a position may make more informed decisions and be more knowledgeable about opportunities available. Thus, by knowing oneself, and then by gaining information about opportunities and type of employment available, the chances of a positive match-up are increased.

The third level within career survival skills occurs once a job is attained--surviving the job. It has been found that the expectation held by a new worker or a graduate entering a position may not coincide with expectations held by the employer. If levels 1 and 2 have been addressed effectively, the third level has a basis of preparation from which the individual may draw. In learning about employers and themselves, expectations become more realistic.

For each level, the available strategies can draw from the career specialist, technical faculty, students, or all in combination which, when utilized, results in a stronger comprehensive base, providing each the opportunity to contribute at the level and within the topic of greatest expertise. The technical faculty is aware of the field, content, and

anticipated on-the-job requirements. The career specialist, of techniques used in knowing the self, in seeking jobs, and in providing the opportunity for more direct contact with the employers.

Ultimately the student must participate, and do so with the realization that success criteria will not be a grade. Rather it will be success or non-success of applying his/her education as a successful employee and in achieving a desirable living.

OUTLINE FOR CAREER SURVIVAL SKILLS WORKSHOPS SERIES

A series of four workshops centering on these topics:

1. Skills/Abilities Awareness
2. Resume Writing
3. Career Information Resources
4. Interview Skills

Major goals of workshops:

a) To increase awareness on the part of students, faculty and staff concerning career survival skills and career information resources available at the college and community levels

b) To involve various faculty and staff members in the development and presentation of career resources/career survival skills workshops

c) To create greater interface between institutional and community/career occupational resources

d) To familiarize faculty with career survival skills information and use of team staff as resource persons

e) To identify those faculty members who have expertise in particular occupational areas.

The publicity campaign to advertise the workshops and the workshop series as a whole included:

- Contact A-V or Graphic Arts Department(s) to develop eyecatching sign(s)

- Print a number of flyers to be distributed to students, hung on bulletin boards, placed in classrooms etc. (See flyer, page 80.)

- Distribute a letter to the faculty explaining the workshops including time, dates, location etc.

- Hold all workshops in one location to create less confusion.

- Develop an article or advertisement to be placed in the student newspaper

- Contact any other on-campus publications such as a newsletter sent to faculty, staff and administration

- Encourage the counseling staff to refer students to the workshops since they often have primary contact with students experiencing the need for career information.

Each workshop is briefly described (1 1/2 hours in length) as follows:

1) Skills/Abilities Awareness - Discussed the need to recognize and develop skills; functional, self-management and work-content skills; applying these concepts to past and present work, life and academic experiences; showing the value of recognizing these skills as related to the job search process.

2) Resume Writing - Covered the concept of resume and why a resume is necessary for a successful job search; resume format and content; developing a resume objective; how to best utilize your resume. The workshop was presented by the Career Center coordinator.

3) Career Information Resources - Purpose of this workshop was to familiarize the students with the various career information resources on the campus - (i.e. the library resources, resources located in the Career/Counseling Center and some resources in the community). This workshop was presented by two reference librarians from our College library and a counselor who works with students in the area of career planning.

4) Interviewing skills - This workshop was presented by three individuals involved in the personnel field. We attempted to cover a broad range of areas including the technology areas and Human Services field. Individuals* from General Electric, the Job Partnership Training Program (formerly C.E.T.A.) and the Huntington Family Center participated. The workshop was done in a panel format with an individual from the College team serving as moderator. Lunch for the panel and team members was served afterward.

As part of the project, all sessions were videotaped and are on reserve at the College's Media Center. Faculty are encouraged to refer students to these tapes when appropriate.

Further Suggestions:

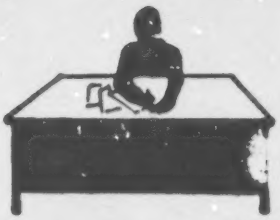
- We encourage you to begin this process early. Publicity is essential to the success of the workshop series.

- The videotaping proved to be an effective method of retaining this information for faculty and students unable to attend one or all of the workshops.

- Community involvement can be very helpful, particularly in the Interviewing Skills Workshop. It is vital that these individuals be dynamic, positive and supportive in their presentation. Careful panel selection is a must!

*All those participating were former Onondaga Community College students.

Prepared by Onondaga Community College Career Survival Skills Team



Attention Students!

Career Survival Skills Workshop Series

Workshop I - A Skills and Abilities Approach to Career Planning (April 11)

Workshop II - Writing Résumés and Cover Letters (April 18)

Workshop III - Career Information and Job Hunting Resources (April 25)

Workshop IV - Interviewing Skills (Presented by Personnel Directors from Various Fields) (May 2)

All Workshops are open to Faculty and Staff.

Time: 11:00 - 12:15

Location: A 272A

Sponsors: SUNY Two Year College Development Center and the Assistance in Development Program

WORKSHOP OUTLINE:
DEVELOPING SPECIFIC ADVISEMENT AND COUNSELING SKILLS

Outline of Session:

1. Warm-Up: Identifying the Problem
2. Attending Behavior and Active Listening
3. Response Styles
   a. Advice Giving and Evaluating
   b. Reassuring and Supporting
   c. Questioning and Probing
   d. Paraphrasing and Understanding

Objectives of Session:

1. Gain an understanding of students' perceptions of advisors and advisement.
2. Practice good attending behaviors.
3. Practice response styles that facilitate open communication between advisor and student.

Developing Specific Advising and Counseling Skills:

A.

1. Listening skills (listening with the third ear)
2. Reflecting skills (emphatic understanding)
3. Skills to help the advisee to communicate more fully
4. Assisting the ESL advisee (special communication needs/ cross-cultural counseling)
5. Other

continued . . . . .

B.

1. Specific objectives for the workshop: Yours/Participants
2. Illustrate behaviors
3. Illustrate desired behaviors/undesired behaviors
4. Role-play
5. Demonstrations by participants
6. Re-cap

Summary Example

Below are examples of responses that advisors might say. Identify the response style the advisor is using. Also, think about how you would feel if each one of these was said to you.

Student: My courses this semester are really difficult.

Advisor 1: If I were you, I would take fewer courses next semester.

Advisor 2: Don't be concerned, I'm sure you can handle it.

Advisor 3: Are you studying enough?

Advisor 4: Why did you take these courses in the same semester?

Advisor 5: What are you finding difficult?

Advisor 6: You're concerned because your courses are hard for you this semester.

Prepared by Hostos Community College Career Survival Skills Team

OBJECTIVES OF HELPING RELATIONSHIPS

1. To assist students to develop, maintain, and appropriately modify their own identities

   The students will:

   a. expand a vocabulary to label and describe feelings

   b. learn to identify their own feeling and past experiences and the manner in which they affect their interrelationship

   c. take opportunities for growth and self awareness

   d. take responsibility for his/her own learning

   e. integrate past experiences and feelings with current adjustment to the role of the nurse

   f. identify their expectations of nursing as they enter the program

   g. keep a log reflecting the evaluation of their attitude and feelings about the role of nursing

   h. explore and clarify personal values as they relate to nursing

   i. explore their own strengths and weaknesses as a helper

   j. take responsibility for assuming the role of helper

   k. maintain confidence about the group

   l. maintain integrity in all interpersonal relationships

2. To assist students to develop communication skills

   The students will:

   a. understand the components of communication, verbal and nonverbal

   b. analyze their personal communication style and its effectiveness

   c. examine communication with patients, peers, supervisors and interdisciplinary teams

   d. examine power and authority and its import on communication

   e. explore the process of helping from the perspective of the helpee and the helper

f. examine support systems available and to understand how he can be instrumental in developing them in school and work environments

g. examine their own needs and their abilities to meet them

h. understand the process of choice and to learn to assist others in learning that process

i. explore the significance and value in the role of helping

3. To assist students to develop a repertoire of coping skills and to effectively utilize those they have

   The student will:

   a. identify skills used by students in the group

   b. recognize their responses to others coping mechanisms

   c. recognize their responses to stress producing situations

   d. assist each other in coping with stress producing situations

4. Assist students to make effective personal and professional changes

   a. recognize and understand a system

   b. discuss ways and models in which change can be instituted

   c. identify alternatives to change

   d. stay in touch with your feelings

Prepared by Tompkins-Cortland Community College and shared by Dutchess Community College team

HELPING RELATIONSHIP: NURSING PROGRAM

Statement of Purpose: We propose to establish student support groups, the function of which will be to promote understanding of nursing as a helping relationship and thereby understanding of self.

Objectives:

The student will:

1. explore their identity as a nurse, including the impact of issues such as professionalism, competency and power.
2. better understand the components (verbal and nonverbal) of communication and analyze their own communication style.
3. recognize their responses to stress-provoking situations and develop effective coping mechanisms.
4. explore effective methods of personal and professional change.

Ground rules for all groups:

1. Confidentiality
2. Nonjudgmental attitude
3. Honesty
4. Respect for each other's feelings and vulnerabilities
5. Taking responsibility for one's own thoughts and feelings
6. Regular attendance
7. All ground rules apply to both leaders and group members

THIS IS NOT A COMPETITIVE PLACE

Course expectations:

1. Regular attendance
2. Journal
3. Statement of philosophy of yourself as a nurse (due at end of semester)

Prepared by Tompkins-Cortland Community College and shared by Dutchess Community College team

HELPING RELATIONSHIP: NURSING PROGRAM

Statement of Purpose: The purpose is to establish student groups that will enable the student to explore and practice communications and support skills in order to understand oneself as a helping professional.

The objectives of this semester are:

1) Understand the components of communication, verbal and nonverbal.
2) Examine communication and its effectiveness in various situations.
3) Identify one's personal communication style and its effectiveness.
4) Identify communication styles used by other students in the group.
5) Identify a feeling which has been expressed in the group.
6) Respond to an expressed feeling in a supportive way.

Ground rules for all groups:

1) Confidentiality
2) Nonjudgmental attitude
3) Honesty
4) Respect for each other's feelings and vulnerabilities
5) Taking responsibility for one's own thoughts and feelings
6) Regular attendance
7) All ground rules apply to both leaders and group members

Attendance expectation:

The Helping Relationships Group is a vital aspect of the Nursing Program and specifically Nursing 101. Students are expected to attend every group meeting. Your attendance in it will be worth 35 points toward your Nursing 101 final grade. Students are expected to discuss all absences with the group leaders. This should be done in advance whenever possible, and it not possible, within a week of the absence. You will either get all 35 points or no points. If a student has two consecutive or three non-consecutive absences, she/he will be referred to the Nursing faculty who will decide whether the student will receive the 35 points.

THIS IS NOT A COMPETITIVE PLACE

Prepared by Tompkins-Cortland Community College and shared by Dutchess Community College team

SAMPLE:
EVALUATION OF HELPING RELATIONSHIP PROGRAM

Part I

Below is a list of the objectives for the Helping Relationship program. Each objective is followed by two scales.

Use the first scale, labeled "Skill Development," to answer the question "How has my participation in the Helping Relationship program assisted me in accomplishing this objective?"

Use the second scale, labeled "Importance," to answer the question "How important is this objective to me in my role as a nurse?"

Please comment on your answers and give examples if possible.

1. Being more aware of your personal style of communication and its effectiveness.

Skill Development

1 2 3 4 5

Has not helped me develop this skill

Has greatly helped me in developing this skill

Importance

1 2 3 4 5

Not important to me

Very important to me

Please comment:

2. Communicating clearly with colleagues.

Skill Development

1 2 3 4 5

Has not helped me develop this skill

Has greatly helped me in developing this skill

Importance

1 2 3 4 5

Not important to me

Very important to me

Please comment:

* * * *

Part II

3. Groups are co-led by a member of the nursing faculty and a counselor.

____Yes (keep the same)

____No (change)

Comments:

4. Groups were made up of students who were in the same clinical group during the first semester.

____Yes (keep the same)

____No (change)

Comments:

5. Participation in Helping Relationships is mandatory for first level students.

____Yes

____No

Comments:

* * * *

Part III

5. To what degree do you think the responsibility for what happens in the group is that of the group members or the group leaders?

Entirely the group members	Mostly the members	Mutually shared	Mostly the leaders	Entirely the leaders

6. What positive/negative outcomes do you see from this program?

Prepared by Tompkins-Cortland Community College and shared by Dutchess Community College team

INTEGRATING CAREER SURVIVAL SKILLS

Attending Behavior and Active Listening

1. Face the student squarely

2. Maintain good eye contact

3. Maintain an open posture

4. Lean toward the student

5. Remain relatively relaxed

6. Free your mind and your office from distractions

7. Use "encouragers to talk"
   - --say "um-hmm"
   - --repeat one or two of the student's words
   - --ask one word questions
   - --nod your head

8. Pay attention to the student's nonverbal behavior

9. Check to see whether the student's verbal and nonverbal messages match

10. Make sure that your verbal and nonverbal messages match

Prepared by Hostos Community College Career Survival Skills Team

WRITING A RESUME

The word resume means summary, and in the context of a job search its primary purpose is to get you an interview so you can sell your attributes to a prospective employer. A resume should be designed to be an advertisement or a product brochure of your skills and abilities. It tells an employer what you have done and how you can apply your skills to the new job. It is your opportunity to promote your skills and abilities on the printed page.

I. Why Prepare A Resume?

It aids in identifying your strengths, skills, and abilities to your most important benefactor--yourself!

A well prepared resume serves several purposes and can be a valuable tool in your search for employment:

a) It is a general introduction which accompanies an application or letter of inquiry.

b) It facilitates an interview. Offer extra copies to members of a search committee who might not have one. Use it to call attention to items which you wish to emphasize.

c) Include it in your placement file.

d) Carry copies for distribution at chance meetings with prospective employers.

e) It tells a prospective employer that you are serious in your quest.

2. An Effective Strategy for Writing A Resume

A. Information Collection

List everything that you have done including dates and places.

1) Educational background
2) Certificates, licenses, and awards
3) Work experience
4) Volunteer experience
5) Interests/hobbies
6) Organizations/affiliations

B. Rank Order the Above Information

Select those materials that seem most significant to you.

C. Resume Categories

Categories for a resume can include:

Educational
Certificates, licenses, and awards
Vocational or work experience
Avocational experience
Awards
Publications
Affiliations
Interests or hobbies
Personal
References
Anything else you find important to complete a presentation of yourself

The choice as to the order of the categories is a matter of deciding which arrangement shows you to your best advantage.

D. Select Format

Decide whether you want to use a chronological, functional or a combination approach.

E. Write A Draft Copy

Decide which areas of your background are most valuable and place them first.

- be positive
- stress accomplishments, not duties
- lead with action verbs that identify your skills and accomplishments, e.g., "coordinated group meetings," "developed procedures for network control."

3. Assessing How It Looks

Overall Appearance	Do you want to read it?
Layout	Does the resume look professional (well typed and printed) with good margins and spacing? Do key sales points stand out?
Length	Could the resume tell the same story if it were shortened?
Relevance	Has extraneous material been eliminated?
Writing Style	Does it flow? Is it easily read?
Action Orientation	Do sentences and paragraphs begin with action verbs?
Specificity	Does the resume avoid generalities and focus on specific information?
Accomplishments	Are your accomplishments and problem-solving skills emphasized?
Completeness	Is all important information included?
Positive Approach	Has the resume maximized your assets and minimized your liabilities?
Bottom Line	How well does the resume accomplish its ultimate purpose of attracting the attention of a prospective employer?

Make sure your resume is accurate and truthful. Be ready to explain further in an interview all things included in your resume!!!

SELECTED "AFTER-COLLEGE" STRATEGIES

1. Narrow the Geographical Area

Choose a city, town, county or metropolitan area that suits you best. Select it on the basis of non-work factors, such as climate, social opportunities, friends available, etc. However, be sure that there are enough potential employers in the area who have the possibility of meeting your work needs.

2. Get an "Interim" Job

Since you have little time and less money after graduation to look around for a suitable career job, stretch the job-hunting time by obtaining an interim job. The "Interim" jobs listed are relatively easy to obtain because they require no previous experience or training; and they have the unique advantage of putting you in touch with a lot of people during the course of your duties.

Keep this kind of job as long as necessary while you are hunting down the kinds of work that you really watn to do. Play this interim job for all it is worth. Talk with people who are doing things in their jobs which interest you. Poke around for job "leads" and valuable inside information. Sooner or later you will meet someone who can help you.

a) Opinion Poll Interviewer: Same as above only more so because polls are growing in usage and acceptance.

b) Commuter Train Conductor: Plenty of opportunity to talk with commuters about their jobs as they ride to and from work.

c) News Reporter: Regardless of how small or insignificant your press card may be, it gives you valuable access to many people in the working world.

d) Cab Driver: Constant chances to pick up valuable clues about various professions, businessmen often chat with cab drivers.

e) Hospital Orderly: Opportunity to talk to a truly captive audience.

f) Golf Caddie: People who have the time and inclination to play this game usually have rather interesting professions and often depend on you for conversation.

g) Employment Agency Interviewer: A good way to learn about job availability from an insider's vantage point.

h) Receptionist: You are the first line of exposure to people who visit the organization. Choose an organization inhabited by employees or customers whom you would like to meet.

3. Start a Chain of Referrals

Once you have talked with someone in an information-seeking interview, you should always ask, "Can you tell me the names of other people who are doing the kind of work you do and how I might get in touch with them? May I say that you suggested I contact them?"

In almost all situations, the person you have talked with will know other people in the field who are nearby and can provide equally useful information. You can use one person to lead you to another and the personal referral is the best kind because it is more likely to get you inside.

It is important to pursue this chain of referrals because one person will not be able to tell you everything about a certain occupation and you will want to avoid being too influenced by his or her particular biases.

Remember, you must get in to see the people who are doing the work that interests you most. Only by talking personally with the people who are "insiders" will you have a shot at job opportunities when they become available. In contrast, if you depend upon being a name on a piece of paper (such as your resume), you will have about the same odds as the other 500 people who are depending upon their paper credentials to carry them through.

Talk to anyone who conceivably might help you, especially secretaries - often they present the first wall you must cross. Get information from them about when the boss is available. Tell them what your interests are; show enthusiasm and eventually you will meet the people you have been waiting to see.

WHAT DO COMPANIES EXPECT FROM YOUNG GRADUATES

What do supervisors look for in prospective candidates? Ideal or successful graduates are practical and realistic. They readily align their personal attitudes and goals with those of the organization. They not only consider the immediate impact of the problems they tackle, but they assess their long-range implications for department operations and company fortunes. Research shows that managers and supervisors consider it important for employees to:

- Learn the organizational system and policies quickly.
- Grasp what is to be done on the job and how it is to be done without having to be told.
- Find out what management's expectations are and what problems the company faces.
- Make the accomplishment of the company's purposes an overriding concern.
- Maintain a positive attitude toward the company's policies and operations.
- Be intent on demonstrating ability and usefulness to the company.
- Put aside undue concerns about promotions, salary increases, or changes in the system to suit personal preferences.

Recent studies identify attributes considered most desirable for career success as follows:

- Good grasp of fundamentals in the area of specialization.
- Up-to-date knowledge of related fields.
- Ability to solve complex problems.
- Good judgment and objectivity in approaching problems.
- Ability to think systematically in abstract concepts.
- Capability to choose the most efficient methods and the latest developments in the solution of problems.
- Ability to plan and organize work so that exact requirements and specifications of a project are known before work is begun.
- Sufficient flexibility to anticipate and make provisions for meeting unforeseen difficulties and for checking the accuracy of data and methods used.
- Willingness to work under pressure and to produce outstanding results under adverse circumstances.
- Promptness in completing assignments.

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